**TRIUMPH GULF COAST, INC. PRE-APPLICATION FORM**

**APPLICANT INFORMATION:**

**The Pensacola Escambia Development Commission met and approved the project on November 15, 2017. This proposal will be presented to the Escambia County Commission on November 30, 2017.**

Name of Organization: University of West Florida

Brief Description of Organization: Based in Pensacola with additional sites in the region, UWF is home to five academic colleges, offering a variety of bachelor's and master's degree programs, as well as specialist degrees and a doctorate in education. With a student population of nearly 13,000, UWF is committed to a close-knit academic experience and is consistently named a top "military friendly" University, this year as number five in the nation. UWF is a driver of economic impact and supports 11,592 jobs in the region that are directly or indirectly related to the university with local incomes and wages at nearly $1.2 billion annually across the regional economy.

**Contact Information**

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**Names of co-applicants, partners or other entities, organizations confirmed:** Armed Forces Communications and Electronics Association (AFCEA) * Air Force Research Laboratory * American Elite Molding * Avalex * The Boeing Company * CareerSource Okaloosa/Walton * Office of the Mayor Fort Walton Beach * Cognitive Big Data Systems * Cyber Safe Workforce * Defense Information Systems Agency (DISA) * Economic Development Council of Okaloosa County * Escambia County School District * FloridaMakes * Florida Small Business Development Center Network * Florida West * Fort Walton Machining * Global Business Solutions, Inc. * Hixart Technologies * Hsu Educational Foundation * IBM * IMS Expert Services * Innovation Coast * Institute for Human and Machine Cognition * Kontact Intelligence * Maritech Machine * Metova CyberCENTS * National Security Agency * Northwest Florida Manufacturers Council * Pensacola Escambia Development Commission * Ridge Global * Santa Rosa Economic Development Office * Santa Rosa County School District * Space Florida * Technology Coast Manufacturing and Engineering Network * Tech Farm, Panama City * Tech Farm Capital * TechSoft * TEQGames at Universal Studios * UWF Historic Trust

**Goals** of the Triumph Gulf Coast Statute and those identified by the Board that this proposed project plans to achieve are:

| | |
|---|---|
| Increase technology and skills | Leverage and enhance the education, research and military regional assets |
| Encourage students with an interest or aptitude in STEM to pursue postsecondary education in the region | Partner with local government to provide infrastructure and land |
| Strengthen Career Readiness Initiatives | Partner with K-20 Educational Institutions |
| Increase diversification of the regional economy | Provide outcome measures |
| Increase the average regional wage/household income | Provide significant match |
| Fund high demand programs of emphasis | Use supplemental funding for programs – not supplant |
| Encourage and increase industry certifications in the region | |

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# EXECUTIVE SUMMARY

The University of West Florida seeks Triumph funding for programming and facilities to support emerging high-tech industry sectors of cybersecurity, advanced manufacturing, artificial intelligence and robotics for the new UWF Innovation Network. The project will result in regional diversification through talent creation for high demand industry sectors, the expansion of the existing skilled workforce and the production of research leading to tech transfer and commercialization.

**Requested Funds:**          **$27,500,000**

|  | Requested Funds | Match Funds |
|---|---|---|
| Programs, Grants and Equipment (Adv. Man., Cyber, Intel Systems) | $12,250,000 | $8,600,000 |
| Programs and Salaries (Adv. Man., Cyber, Intel Systems) | $2,250,000 | $15,250,000 |
| Facilities and Land (New facility Pensacola, FWB Renovation, Intel Systems Research) | $13,000,000 | $12,250,000 |
| Totals | **$27,500,000** | **$36,100,000** |

Match funds come from the following sources: donations (land, land improvements, infrastructure, design and engineering), private, state and federal agencies (cybersecurity, advanced manufacturing, innovation) and university programming and salaries connected directly to activities of the Innovation Network.
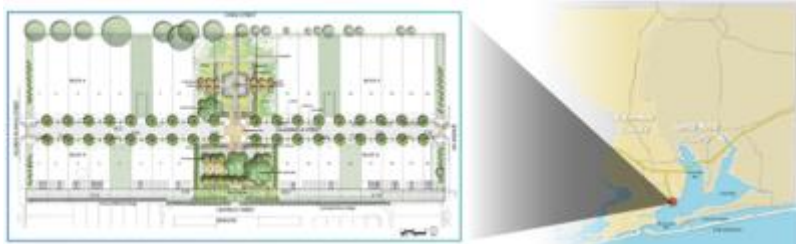
## Project Location

(1) Development of a multi-story building on nine acres of donated land in downtown at the Pensacola Technology Campus. (2) Minor renovations at UWF owned property adjacent to IHMC located in downtown Pensacola. (3) Minor renovation on the UWF-Northwest Florida State College Joint Campus in Fort Walton Beach.

## Project Summary

With a visionary investment from Triumph Gulf Coast, the UWF Innovation Network will establish a regional network of partners focused on education, workforce development, research and economic development. This network of educators, researchers, industry leaders, innovators and entrepreneurs will provide expertise focusing on **regional innovation** and **talent development**. A new multi-story facility located on nine acres of donated land at the downtown Pensacola Technology Campus will serve as the center of operation to strategically support emerging high-tech industry sectors in cybersecurity and advanced manufacturing to include intelligent systems and robotics (see Figure 1). The facility will be a catalyst for the co-location of partner companies, startups and future growth in the high-tech industry in the region.
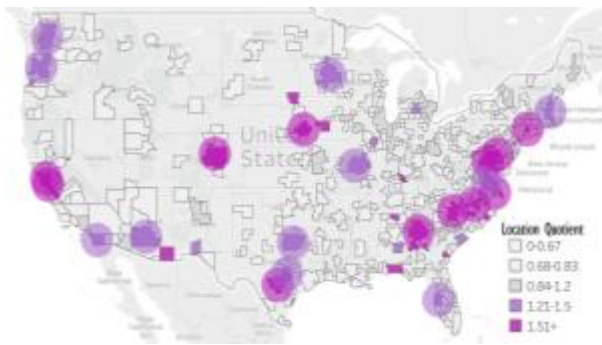


Figure 1: Pensacola Technology Campus Center of Operation

**Regional Innovation**. UWF will accelerate regional innovation through key industry partnerships, expand multidisciplinary degree programming, promote regional innovation through research and produce highly qualified talent for jobs promoting economic recovery, diversification and enhancement of the economy in Northwest Florida. This proposal extends the collaborative regional work with the FloridaWest Economic Development Alliance Regional Cybersecurity Strategic Plan, the Northwest Florida Forward Plan and the ongoing work of The Northwest Florida Advanced Manufacturing Council and FloridaMakes.

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The new facility on the Pensacola Technology Campus' nine acres will include a Cybersecurity Innovation Center, Advanced Manufacturing Laboratory and more. The Cybersecurity Innovation Center will feature the Florida Cyber Range. The Range will establish the region as a leader in cutting-edge skills-based cyber training and operations to detect and defend against cyber threats and attacks. It will provide a state-of-the-art, powerful, realistic training environment to support cyber warfare exercises, operations and competitions for government, military, industry, K12 and higher education, while also facilitating the development and testing of innovative cyber threat detection, defense and response solutions. The Center will provide regional access to a network of existing key partners and stakeholders across the Southeastern United States through the UWF Center for Cybersecurity's designation as a National Center of Academic Excellence and Southeastern United States Regional Hub designated by the National Security Agency and Department of Homeland Security.

The Advanced Manufacturing Laboratories (AML) will feature tools for rapid prototyping and innovation including: carbon fiber 3D printers, metal 3D printer, 3D scanners, laser cutters, Kuka training robotic arm, PLC and industry automation training station, CNC machine, makerbot replicators, and form labs. A regional network of advanced manufacturing resources and laboratories from the new UWF Sea3D Lab located on UWF historic property to a Lab in Fort Walton Beach at the UWF-NWFSC Joint Campus and a UWF-IHMC Intelligent Systems and Robotics Warehouse situated adjacent to IHMC property in downtown Pensacola will provide access to equipment, expertise and research. The AML will link existing key partners and stakeholders through the Northwest Florida Manufacturers Council and FloridaMakes to the UWF Innovation Network. Key partners and stakeholders will further support Manufacturing Career Academies across the region, engage regional manufacturers and provide significant research opportunities for students and researchers. The UWF-IHMC joint PhD program in Intelligent Systems and Robotics will be a centerpiece of research for students, faculty researchers, scientists and entrepreneurs.

**Talent Development.** The talent supply needs in emerging high-tech industries are well documented. The nation has a current shortage of over 300,000 cybersecurity professionals, and in Northwest Florida alone, over 1,300 vacant high-wage cybersecurity positions exist. Cyberseek.org identifies national hotspots for Cybersecurity (see Figure 2). Pensacola is clearly among the hottest growth areas in the country. Building on UWF's Cybersecurity strengths and partnerships with the military and industry organizations, UWF will establish Northwest Florida as a national leader in cybersecurity. Key programs will significantly expand the cybersecurity workforce across the region, state and nation, and increase the number of qualified cybersecurity professionals, including under-served and under-utilized populations. Students working with industry experts and faculty mentors will solve key cybersecurity issues, learn foundational knowledge, connect fully to internships and co-op experiences and prepare for rapidly growing cybersecurity jobs in our region.

Figure 2: Cyberseek.org



In Manufacturing, more than 3.5 million professionals are needed to fill vacancies in manufacturing by 2020. Of that number, 2 million manufacturing jobs may remain vacant. Northwest Florida manufacturers face significant out-of-state competition for skilled professionals. The Advanced Manufacturing team at UWF supports training, education, and internships that will improve the regional economy by filling vacant positions in manufacturing. The return on the investment for filling manufacturing positions creates one-and-a-half new jobs in support sectors like logistics and business services.

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Programming critical to achieving a strong talent pipeline includes focused degrees as well as individual courses, certificates, workforce training and events to further develop regional talent. **Events** such as Hacking4Defense, Southeast Cyber Defense Competition, AFA CyberPatriot Competitions and GenCyber Camps are planned for larger scale community, industry and K12 engagement. **Programming** includes: Cybersecurity (NSA/DHS Program), Cybersecurity for All (Industrial Control Systems Security, Cybersecurity Fundamentals, Risk Management, Secure Programming, and OS Hardening). In Advanced Manufacturing: 3D Design Using Solid Work, Project Management Professional, Process Mapping, Corrective and Preventative Action for Aerospace, Geometric Dimensioning and Tolerencing, 3D Scanning, Certificates for Engineers and Manufacturers. Student **capstone experiences** in the areas of Computer Science, Computer Information Systems, Software Engineering, Information Technology, IT Network Systems, Software Engineering, Supply Chain Logistics, Electrical Engineering and Mechanical Engineering will also be included to extend students' industry experience.

Within three years, this project will have supported more than **9,000 students** and **workforce participants**. At the five-year benchmark, more than **17,000 students** and **workforce participants** will have participated in degree programming, workforce training and events. This initiative will increase the number of students ready to accept positions in the region as well as accelerate existing employers' workforce development needs in areas that produce immediate workforce impact. Additional exposure for Advanced Manufacturing's Sea3D Lab located in the Museum of Commerce will be **175,000 visitors** annually, with **14,000** of those visitors being fourth graders who will see advanced manufacturing in action, complete with activities for use back in the classroom.

Graduates of UWF Innovation Network programs will make salaries above the average wage to include: **cybersecurity** professionals: IT security specialist: $113,701; IT security manager: $131,600; network security engineer: $107,868; computer network architect: $100,240; information security analyst: $90,120 and security engineer: $81,078. The 2016 median pay for information security analysts is $92,600. **Advanced manufacturing** professionals include: Mechanical Engineering: $95,270; Scientific Research and Development: $99,180; Aerospace Product and Parts Manufacturing: $98,230.

**Timeline**
The UWF Innovation Network will launch **Phase 1** in early 2018 with the grand opening of the Sea3D Advanced Manufacturing Design Lab and the UWF Center for Cybersecurity's Community-Based Laboratory in downtown Pensacola. In **three** months from project start, the Sea3D space in Advanced Manufacturing will begin offering workforce training and programming student capstones. Within **eight** months, the Center for Cybersecurity will be downtown offering critical workforce training and education.

**Phase 2** will entail the construction of a new facility and renovations of the Intelligent Systems and Robotics teaching space in downtown Pensacola as well as renovations in Ft. Walton Beach. The construction process will commence immediately upon award. The Pensacola Technology Campus land is shovel ready.

➢ The Fort Walton Beach Advanced Manufacturing Lab will launch in **January 2019** in a renovated space on the Joint Campus of UWF-NWFSC.
➢ The Intelligent Systems and Robotics Warehouse teaching facility will launch in **May 2019** in a UWF-owned space situated next to IHMC.
➢ By **December 2019**, the multi-story Innovation Network facility will be fully operational with its networked partners in place as the center of operation on the nine acres of the Pensacola Technology Campus.

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